

REMARKS

Applicant is in receipt of the Office Action mailed December 11, 2008. Claims 1-9, 11, 12, 17, 18, 20, 21, 23-30, 32, and 35 have been amended. New claims 36 and 37 have been added. Claims 1-37 are pending in the case. Reconsideration of the present case is earnestly requested in light of the following remarks.

Objections to the Claims

Claim 20 was objected to for being a substantial duplicate of claim 1. Applicant has amended claim 20, and respectfully requests removal of the objection.

Amendments

Applicant has amended the claims to clarify and emphasize that the components claimed are *hardware components*. Support for the amendments may be found at least on p.41, lines 3-5, which reads “The respective components can comprise any sort of component (typically hardware components) including such things as fans, power supplies, motherboards and, for example, server blades.”

Allowed Subject Matter

Applicant appreciates the allowance of the subject matter of claims 14-16 and 32-34, but believes that the claims as currently written distinguish over the cited art. Applicant also notes that the subject matter of claim 14, which depends from claim 13, which depends from claim 12, does not technically require the subject matter of claim 13. Applicant has thus amended original claim 20 to depend from claim 1, and to recite the subject matter of claims 12 and 14. New claims 36 and 37 have also been added based on the subject matter of claims 12 and 14, respectively.

Section 103 Rejections

Claims 1-9, 12-13, 19-31, and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Oulu et al. (US Pat. No. 6792460, “Oulu”) in view of Fontana et al. (US Pat. No. 6237143, “Fontana”).

Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ouluin view of Fontana, and further in view of Edwards et al. (US Pat. No. 5901315, “Edwards”).

Claims 11 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ouluin view of Fontana, and further in view of Official Notice.

Claim 17 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ouluin view of Fontana, and further in view of Dulbert et al. (US Pat. Pub. 2003/0023956, “Dulberg”).

Amended claim 1 recites:

1. A management system for generation of a management object model including a structured hierarchy of objects representing hardware components of a computer system for performing management of the computer system, the management system comprising:

a processor; and

a memory coupled to the processor, wherein the memory comprises program instructions configured to implement:

component modules operable to define mappings from instrumentation of the hardware components to objects representing those hardware components, and

configuration modules operable to configure associations between the component modules for the generation of the management object model.

Applicant respectfully submits that both Oulu and Fontana are directed to monitoring software modules or components, e.g., time spent by software application components (Oulu), or file use by software tools (Fontana). This is technically quite different from monitoring of hardware components of a computer system, and involving significantly different technology and expertise. Thus, Applicant respectfully submits that the art of Oulu and Fontana is non-analogous art with respect to the present claims.

For example, nowhere does the cited art disclose **A management system for generation of a management object model including a structured hierarchy of**

objects representing hardware components of a computer system for performing management of the computer system, as recited in claim 1.

Per the Brief Description of the Drawings, cited Figure 1C illustrates an interface that may be used to specify the components and methods to be monitored on an application server. However, Oulu makes quite clear that the components referred to are software application components.

For example, Oulu's Abstract states:

A monitoring system monitors the amount of time spent by specific application components, such as Java components, during execution of specific web site transactions. (*emphasis added*)

Additionally, col.3:41-col.4:10 reads:

As depicted by FIG. 1, the web site system 112 ("web site") being monitored includes an application server machine or computer 100 ("application server") that runs one or more applications 102. Although a single application 102 is shown for purposes of illustration, the application server 100 may run many different applications, some or all of which may be monitored concurrently using the application server monitoring feature. The web site 112 may also include additional application servers 100. As shown in FIG. 1, the application 102 typically provides user access to one or more back-end databases 106 through one or more database servers 108.

The application 102 is preferably a multi-tier application, and may, for example, provide functionality for implementing one or more business processes, such as setting up a user account, placing an order, or generating a report. This functionality is preferably implemented using one or more application components 104, and typically many different components 104. The components may, for example, include objects provided in Java.TM. 2 Platform, Enterprise Edition (J2EE), or objects based on another multi-tier applications standard. For example, the application may make use of one or more of the following types of J2EE components: servlets, JSPs (Java Server Pages), EJBs (Enterprise JavaBeans), JDBC (Java Database Connectivity), JNDI (Java Naming and Directory Interface), JMS (Java Message Service), and JTA (Java Transaction API).

As described below, the application server monitoring feature, as implemented in the preferred embodiment, allows users of the monitoring system to monitor the times spent by each such application component or component type processing specific user transactions (e.g., login, execute search, place order, etc.). The system also preferably reveals the impact these component execution times have on end-user performance (performance as seen by end users of the web site), such as by displaying transaction response times for the same user transactions over the same time period. (*emphasis added*)

Clearly, Oulu is directed to monitoring software components of a website application system, and Oulu's components are *not* hardware components, and are nowhere described as such.

Fontana is also directed to monitoring software, specifically, software tools, and nowhere mentions managing hardware components. Applicant notes that Fontana's Abstract states:

A method is provided in a computer system, which employs a multiplicity of diverse software tools, for monitoring and capturing a pattern of all file usage of each of the software tools. (*emphasis added*)

Nowhere does Oulu or Fontana teach or suggest a management system for generation of a management object model including *a structured hierarchy of objects representing hardware components of a computer system* for performing management of the computer system.

Thus, the cited art fails to teach or suggest this feature of claim 1.

Nor does the cited art disclose **component modules operable to define mappings from instrumentation of the hardware components to objects representing those hardware components**, as recited in claim 1.

Cited col.1:41-52 of Oulu reads thusly:

A probe that runs on an application server initially instruments these application components (preferably at component load time) to add code for tracking execution start and stop times. When a monitored transaction is executed by the application server, the probe measures the execution times of

the invoked components--preferably at the component method level. The resulting measurement data is reported to a reports server, and is preferably used to provide transaction-specific breakdowns of the amount of time spent by each instrumented component, and optionally each instrumented method within such components. (*emphasis added*)

As the citation makes clear, Oulu's probe implements instrumentation code in software application components which reports execution times of the invoked components when the application executes. In other words, the probe *implements the instrumentation and actually measures the execution times of software components*. Thus, this probe specifically does *not* define mappings *from* instrumentation of *hardware components* to *objects representing those hardware components*. Note that no “*objects representing those hardware components*” are even mentioned. Nor does Fontana disclose these features, also being directed to monitoring software, specifically, software tools.

Thus, the cited art fails to teach or suggest these features of claim 1.

Nor does the cited art disclose **configuration modules operable to configure associations between the component modules for the generation of the management object model**, as recited in claim 1.

Cited col.8:14-17 of Oulu reads thusly:

As mentioned above, the specific components to be monitored by the probe 122 on a given application server 100 are preferably specified by a configuration file 125 (FIG. 1A) stored on that application server.

As discussed above, Oulu's components are software application components, e.g., Java components, *not* hardware components, thus, Oulu's configuration files do not, and cannot, configure associations between component modules that define mappings from instrumentation of hardware components to objects representing those hardware components. Additionally, Applicant notes that the cited configuration files are not functional “modules” operable to actually *perform* the claimed functionality--configuring associations between component modules for the generation of the management object

model, but rather are just configuration data. Nor does Fontana disclose these features, being directed to monitoring software tools.

Thus, the cited art fails to teach or suggest these features of claim 1.

Thus, for at least these reasons, Applicant submits that the cited art fails to teach or suggest all the features and limitations of claim 1, and so claim 1, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Independent claims 21 and 35 each includes novel features similar to those of claim 1, and so the above arguments apply with equal force to these claims. Thus, for at least the above reasons, claims 21 and 35, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Applicant asserts that numerous ones of the dependent claims recite further distinctions over the cited art.

For example, nowhere does the cited art disclose **wherein one of said component modules for a hardware component identifies an instrumentation module defining a source of instrumentation for the hardware component, wherein the instrumentation module comprises a general part and a specific part, the general part being operable to communicate with the specific part via a private interface to obtain instrumentation data, and the specific part being configured to interface with instrumentation for the hardware component to obtain said instrumentation data**, as recited in claim 20.

Applicant respectfully notes that the Office Action allowed the subject matter of claim 14, which includes the subject matter of intervening claims 12 and 13. Applicant submits that the subject matter of claim 14 does not require that of claim 13, and that the features and limitations of claim 14 in combination with those of claim 12 are also patentably distinct and non-obvious over the cited art. Amended claim 20 includes this subject matter, and thus, Applicant submits that the cited art fails to teach or suggest the features and limitations of amended claim 20, and so claim 20, and those claims

respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Applicant further notes that dependent claims 2-12, 22-30, and 32 all relate to Applicant's component modules, which, per claim 1, define mappings from instrumentation of the *hardware* components to objects representing those hardware components. As explained above, the cited art of Oulu and Fontana does not, and cannot, teach these features. The cited art of Edwards, cited with respect to claim 10, is directed to debugging Java-based software, and thus is also not germane to Applicant's claimed hardware-related component modules.

Applicant further notes that the instrumentation modules of claims 12, 13, 17, and 18 are for instrumenting *hardware components*, whereas the instrumentation/monitoring in all the cited references is with respect to software, which is quite different.

Thus, Applicant submits that the cited art fails to teach or suggest the features and limitations of these claims, and so claims 2-12, 20, 22-30, and 32 are patentably distinct and non-obvious over the cited art, and are thus allowable.

Applicant also asserts that numerous other ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Removal of the section 103 rejection of the claims is respectfully requested.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above-referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Meyertons, Hood, Kivlin, Kowert & Goetzel P.C., Deposit Account No. 50-1505/5681-76400/JCH.

Respectfully submitted,



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